

### WHAT IS CLAIMED IS:

1. A monitor comprising:
  - a primary input responsive to a first property of a tissue site;
  - an uncompensated measurement determinable from said primary input;
  - a parameter input responsive to a second property associated with said tissue site, said first property being dependent upon said second property;
  - a compensation relationship of said primary input, said parameter input and a compensated measurement; and
  - a processor configured to output said compensated measurement from said primary input and said parameter input utilizing said compensation relationship, wherein said compensated measurement more accurately represents said first property than said uncompensated measurement.
2. A monitoring method comprising the steps of:
  - determining a relationship between a first property of a tissue site, a second property associated with said tissue site and a compensated measurement of said tissue site;
  - reading a primary input responsive to said first property and a parameter input responsive to said second property; and
  - processing said primary input and said parameter input according to said relationship so as to output said compensated measurement.
3. A monitor comprising:
  - an first input means for determining a first property value associated with a tissue site;
  - a second input means for determining a second property value associated with a tissue site;
  - a compensation means for determining a relationship between compensated measurement values, first property values and second property values; and
  - a processor means for deriving a compensated measurement of said first property from said first input means, said second input means and said compensation means.